**IN THE CLAIMS:**

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1, 9, 20, 30, 41, 52, and 61 in accordance with the following:

1. (Currently Amended) An optical film comprising:

an array of diffraction grating cells arranged in a matrix, each cell comprising blazed type or binary type curved gratings,

wherein each side of each diffraction grating cell measures between about 5 μm and about 300 μm.

2. (Previously Presented) The optical film according to claim 1, wherein said gratings of different grating cells contain different profiles.

3. (Previously Presented) The optical film according to claim 1, wherein said gratings of different grating cells contain the same profile and are arranged in parallel with each other.

4. (Previously Presented) The optical film according to one of claims 1 to 3, wherein said gratings of each of the grating cells include at least two grating pitches.

5. (Previously Presented) The optical film according to one of claims 1 to 3, wherein an angle of a slope of the gratings of different grating cells is uniform.

6. (Previously Presented) The optical film according to one of claims 1 to 3, wherein a surface of said diffraction grating cells of each of the grating cells is provided with a reflection layer.

7. (Previously Presented) The optical film according to one of claims 1 to 3, wherein each of the gratings of each of the grating cells has a gentle slope and a steep slope in a cross section and a surface of the gentle slope is provided with a reflection layer.

8. (Original) The optical film according to one of claims 1 to 3, wherein fine rectangular or elliptic projections or recesses are formed on a surface of said diffraction grating cells with a short axis thereof agreeing with a direction of juxtaposition of said gratings.

9. (Currently Amended) A display device comprising:

a liquid crystal display layer which forms an image to be displayed; and

a light reflecting optical film which is arranged on a rear surface of the liquid crystal display layer and comprises an array of diffraction grating cells arranged in a matrix, each cell comprising blazed type or binary type curved gratings,

wherein each side of each diffraction grating cell measures between about 5 μm and about 300 μm.

10. (Previously Presented) The display device according to claim 9, wherein said gratings of different grating cells contain different profiles.

11. (Previously Presented) The display device according to claim 9, wherein said gratings of different grating cells contain the same profile and are arranged in parallel with each other.

12. (Previously Presented) The display device according to one of claims 9 to 11, wherein said gratings of each of the grating cells include at least two grating pitches.

13. (Previously Presented) The display device according to one of claims 9 to 11, wherein an angle of a slope of the gratings of different grating cells is uniform.

14. (Previously Presented) The display device according to one of claims 9 to 11, wherein a surface of said diffraction grating cells of each of the grating cells is provided with a reflection layer.

15. (Previously Presented) The display device according to one of claims 9 to 11, wherein each of the gratings of each of the grating cells has a gentle slope and a steep slope in a cross section and a surface of the gentle slope is provided with a reflection layer.

16. (Original) The display device according to one of claims 9 to 11, wherein fine rectangular or elliptic projections or recesses are formed on a surface of said diffraction grating cells with a short axis thereof agreeing with a direction of juxtaposition of said gratings.

17. (Previously Presented) The display device according to one of claims 9 to 11, wherein

said liquid crystal display layer comprises an array of pixels arranged in a matrix; and

said diffraction grating cells and said array of pixels show a one-to-one correspondence.

18. (Previously Presented) The display device according to one of claims 9 to 11, wherein

said liquid crystal display layer comprises an array of pixels arranged in a matrix; and

a pitch of said array of diffraction grating cells is an integral multiple of a pitch of said array of said pixels or vice versa.

19. (Previously Presented) The display device according to one of claims 9 to 11, wherein each of the gratings of each of the grating cells has a gentle slope and a steep slope in a cross section and the gentle slope is directed to above a display screen of said display device.

20. (Currently Amended) A display device comprising:

a liquid crystal display layer which forms an image to be displayed; and

a light transmission optical film which is arranged on a front surface of the liquid crystal display layer and comprises an array of diffraction grating cells arranged in a matrix, each cell comprising blazed type or binary type curved gratings,

wherein each side of each diffraction grating cell measures between about 5 μm and about 300 μm.

21. (Previously Presented) The display device according to claim 20, wherein said gratings of different grating cells contain different profiles.

22. (Previously Presented) The display device according to claim 20, wherein said gratings of different grating cells contain the same profile and are arranged in parallel with each other.

23. (Previously Presented) The display device according to one of claims 20 to 22, wherein said gratings of each of the grating cells include at least two grating pitches.

24. (Previously Presented) The display device according to one of claims 20 to 22, wherein an angle of a slope of the gratings of different grating cells is uniform.

25. (Original) The display device according to one of claims 20 to 22, wherein fine rectangular or elliptic projections or recesses are formed on a surface of said diffraction grating cells with a short axis thereof agreeing with a direction of juxtaposition of said gratings.

26. (Previously Presented) The display device according to one of claims 20 to 22, wherein

said liquid crystal display layer comprises an array of pixels arranged in a matrix; and

said array of diffraction grating cells and said array of pixels show a one-to-one correspondence.

27. (Previously Presented) The display device according to one of claims 20 to 22, wherein

said liquid crystal display layer comprises an array of pixels arranged in a matrix; and

a pitch of said array of diffraction grating cells is an integral multiple of a pitch of said array of said pixels or vice versa.

28. (Previously Presented) The display device according to one of claims 20 to 22, wherein each of the gratings of each of the grating cells has a gentle slope and a steep slope in a cross section and the gentle slope is directed to above a display screen of said display device.

29. (Cancelled)

30. (Currently Amended) An optical film comprising:

an array of diffraction grating cells arranged in a matrix, each cell comprising curved gratings, wherein said gratings of each of the grating cells include at least two grating pitches,

wherein each side of each diffraction grating cell measures between about 5 μm and about 300 μm.

31. (Original) The optical film according to claim 30, wherein said diffraction grating cells are blazed type diffraction grating cells.

32. (Original) The optical film according to claim 30, wherein said diffraction grating cells are binary type diffraction grating cells.

33. (Previously Presented) The optical film according to one of claims 30 to 32, wherein, a pitch $d_y$ of said array of the gratings is changed in a cell so as to change either $\alpha_y$ or the tangent of $\alpha_y$ stepwise by a constant value, wherein $\theta$ is an angle in the vertical direction at which incident light enters the diffraction grating cells, $\alpha_y$ is an angle in the vertical direction at which diffracted light emits from the diffraction grating cells, and $\lambda(=d_y \times (\sin\theta + \sin\alpha_y))$ is a wavelength of diffracted light.

34. (Previously Presented) The optical film according to one of claims 30 to 32, wherein a pitch of said array of the gratings in a diffraction grating cell is constant and a pitch $d_y$ of said array of the gratings is changed from cell to cell so as to change either $\alpha_y$ or the tangent of $\alpha_y$ stepwise by a constant value, wherein $\theta$ is an angle in the vertical direction at which incident light enters the diffraction grating cells, $\alpha_y$ is an angle in the vertical direction at which diffracted light emits from the diffraction grating cells, and $\lambda(=d_y \times (\sin\theta + \sin\alpha_y))$ is a wavelength of diffracted light.

35. (Previously Presented) The optical film according to one of claims 30 to 32, wherein a pitch of said array of the gratings in a diffraction grating cell is constant and there are at least two grating pitches of said array of the gratings among the diffraction grating cells, a difference of the pitches being not greater than a value corresponding to the half-width of light diffracted by the cell or a value corresponding to the width of light diffracted by the cell.

36. (Previously Presented) The optical film according to one of claims 30 to 32, wherein said gratings of different grating cells contain the same profile and are arranged in parallel with each other.

37. (Previously Presented) The optical film according to one of claims 30 to 32, wherein an angle of a slope of the gratings of different grating cells is uniform.

38. (Previously Presented) The optical film according to one of claims 30 to 32, wherein a surface of said diffraction grating cells of each of the grating cells is provided with a reflection layer.

39. (Previously Presented) The optical film according to one of claims 30 to 32, wherein each of the gratings of each of the grating cells has a gentle slope and a steep slope in a cross section and a surface of the gentle slope is provided with a reflection layer.

40. (Original) The optical film according to one of claims 30 to 32, wherein fine rectangular or elliptic projections or recesses are formed on a surface of said diffraction grating cells with a short axis thereof agreeing with a direction of juxtaposition of said gratings.

41. (Currently Amended) A display device comprising:

a liquid crystal display layer which forms an image to be displayed; and

a light reflecting optical film which is arranged on a rear surface of the liquid crystal display layer and comprises an array of diffraction grating cells arranged in a matrix, each cell comprising curved gratings, wherein said gratings of each of the grating cells include at least two grating pitches,

wherein each side of each diffraction grating cell measures between about 5 μm and about 300 μm.

42. (Previously Presented) The display device according to claim 41, wherein said gratings of different grating cells contain different profiles.

43. (Previously Presented) The display device according to claim 41, wherein said gratings of different grating cells contain the same profile and are arranged in parallel with each other.

44. (Cancelled)

45. (Previously Presented) The display device according to one of claims 41 to 43, wherein an angle of a slope of the gratings of different grating cells is uniform.

46. (Previously Presented) The display device according to one of claims 41 to 43, wherein a surface of said diffraction grating cells of each of the grating cells is provided with a reflection layer.

47. (Previously Presented) The display device according to one of claims 41 to 43, wherein each of the gratings of each of the grating cells has a gentle slope and a steep slope in a cross section and a surface of the gentle slope is provided with a reflection layer.

48. (Original) The display device according to one of claims 41 to 43, wherein fine rectangular or elliptic projections or recesses are formed on a surface of said diffraction grating cells with a short axis thereof agreeing with a direction of juxtaposition of said gratings.

49. (Previously Presented) The display device according to one of claims 41 to 43, wherein

said liquid crystal display layer comprises an array of pixels arranged in a matrix; and

said array of diffraction grating cells and said array of pixels show a one-to-one correspondence.

50. (Previously Presented) The display device according to one of claims 41 to 43, wherein

said liquid crystal display layer comprises an array of pixels arranged in a matrix; and

a pitch of said array of said diffraction grating cells is an integral multiple of a pitch of said array of said pixels or vice versa.

51. (Previously Presented) The display device according to one of claims 41 to 43, wherein each of the gratings of each of the grating cells has a gentle slope and a steep slope in a cross section and the gentle slope is directed to above a display screen of said display device.

52. (Currently Amended) A display device comprising:

a liquid crystal display layer which forms an image to be displayed; and

a light transmission optical film which is arranged on a front surface of the liquid crystal display layer and comprises an array of diffraction grating cells arranged in a matrix, each cell comprising curved gratings, wherein said gratings of each of the grating cells are arranged by at least two pitches.

wherein each side of each diffraction grating cell measures between about 5 μm and about 300 μm.

53. (Previously Presented) The display device according to claim 52, wherein said gratings of different grating cells contain different profiles.

54. (Previously Presented) The display device according to claim 52, wherein said gratings of different grating cells contain the same profile and are arranged in parallel with each other.

55. (Cancelled)

56. (Previously Presented) The display device according to one of claims 52 to 54, wherein an angle of a slope of the gratings of different grating cells is uniform.

57. (Original) The display device according to one of claims 52 to 54, wherein fine rectangular or elliptic projections or recesses are formed on a surface of said diffraction grating cells with a short axis thereof agreeing with a direction of juxtaposition of said gratings.

58. (Previously Presented) The display device according to one of claims 52 to 54, wherein

said liquid crystal display layer comprises an array of pixels arranged in a matrix; and

said array of diffraction grating cells and said array of pixels show a one-to-one correspondence.

59. (Previously Presented) The display device according to one of claims 52 to 54, wherein

said liquid crystal display layer comprises an array of pixels arranged in a matrix; and

a pitch of said array of said diffraction grating cells is an integral multiple of a pitch of said array of said pixels or vice versa.

60. (Previously Presented) The display device according to one of claims 52 to 54, wherein each of the gratings of each of the grating cells has a gentle slope and a steep slope in a cross section and the gentle slope is directed to above a display screen of said display device.

61. (Currently Amended) A display device comprising:

a liquid crystal display layer;

a plurality of drive electrodes in proximity to the liquid crystal display layer; and

a light reflecting optical film including a plurality of diffraction grating cells arranged in a matrix, each of the diffraction grating cells including at least one of a blazed type and a binary type grating,

wherein the drive electrodes form the light reflecting optical film, and

wherein each of the drive electrodes includes one of the diffraction grating cells, and

wherein each side of each diffraction grating cell measures between about 5 μm and about 300 μm.